

**BEFORE THE WASHINGTON  
UTILITIES & TRANSPORTATION COMMISSION**

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,

Complainant,

v.

CENTURYLINK COMMUNICATIONS, LLC,

Respondent.

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DOCKET UT-181051

**BRIAN ROSEN**

**ON BEHALF OF THE  
WASHINGTON STATE OFFICE OF THE ATTORNEY GENERAL  
PUBLIC COUNSEL UNIT**

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**Exhibit BR-5**

CenturyLink Supplemental Response to Public Counsel Data Request No. 7,  
Attachments PC-7a and PC-7b

**December 15, 2021**

CenturyLink Communications, LLC ("CLC"), by and through its counsel hereby objects and responds to the Second Set of Data Requests of Public Counsel as follows:

**GENERAL OBJECTIONS**

CLC incorporates the following general objections into each individual data request response below:

1. CLC objects to each data request to the extent that it seeks or purports to seek information protected by any applicable privilege or immunity, including the attorney-client privilege and work-product doctrine. Any inadvertent production of privileged or work-product protected material is not a waiver of the status of such work product, nor is any response herein to be deemed a waiver of any privilege, doctrine, or immunity.
2. CLC objects to any data request or instruction that purports to require more than is required by the applicable rules of the Commission.
3. CLC objects generally to each data request to the extent (i) that the information requested is known to Public Counsel or their counsel; (ii) the request requires disclosure of information, documents, writings, records, or publications in the public domain; or (iii) the information requested is equally available to Public Counsel or their counsel from sources other than CenturyLink.
4. CLC objects to each data request to the extent that it is overly broad, vague and ambiguous, unduly burdensome, and calling for information that is irrelevant or not proportional to the needs of the case.
5. These responses are provided on the basis of the best information currently available to CLC after diligent effort to gather such information within its possession, custody or control. CLC reserves the right to amend these responses as new information is gathered.

PC-7 In this and subsequent questions, the Inter-Tandem Trunk (ITT) is the name given to the interface between the CenturyLink Emergency Services IP Network ("ESInet") and the Comtech ESInet. It is our understanding that, at the time of the December 2018 outage event, calls were collected from Originating Service Providers (OSP), and if they were destined for public safety answering points (PSAP) that had been transitioned to the Comtech ESInet, were routed to the ITT and then to Comtech. The ITT was signaling system 7 network ("SS7") based. At what point during the course of the December 2018 outage was the Company notified that calls were not being received from the ITT system?

**RESPONSE:**

CLC understands that, as used here, "inter-tandem trunk" (or "ITT") refers to the trunk (in service at the time of the December 2018 outage) connecting the CenturyLink gateway and the Comtech gateway for 911 calls directed to Washington PSAPs that had already migrated and were being served by Comtech. On the diagram provided as Attachment PC-7 (Bates No. CLC-001454), the ITT is denoted as "Comtech ES (ITT) Trunk Voice Path" (see Attachment PC-7, step 7.d.). With that understanding, CLC responds as follows.

This data request appears to be premised on a false understanding of the facts underlying the outage at issue in this proceeding. Public Counsel seems to assume that the ITT failed, and that the failure occurred on the CenturyLink 911 network and/or the CenturyLink side of the demarcation point between the two networks. It did not. Instead, some calls directed to Comtech-served PSAPs failed to reach the Comtech ITT *because the Comtech SS7 links* used to established call setup between the CenturyLink/Intrado and Comtech NG911 ESInets over the ITT were impacted. The Comtech SS7 links that were impacted by the outage *sat on the Comtech side of the demarcation point* between the CenturyLink and Comtech networks (see Attachment PC-7, step 7.b.), and were thus Comtech's contractual and regulatory obligation to design, construct and maintain. Calls destined for CenturyLink-served PSAPs were completed because they did not use the Comtech SS7 links or the Comtech ITT.

CLC interprets "At what point during the course of the December 2018 outage was the Company notified that calls were not being received from the ITT system?" to be asking when did Comtech notify CenturyLink that Comtech was not receiving 911 calls over the Comtech ITT. The earliest indication of ITT issues from Comtech appears to have been received by CenturyLink at 1:07 am on December 28, 2018 in an email from Pat Margherio (Comtech) to Jacob Clow (CenturyLink) ("Jake, Can you provide a resource to join 206-812-0288 ext 2464 to and work through why CenturyLink believes the impact to the SoWA ITTs is not related to the national outage? Pat"). At 1:39 am on December 28, 2018, Comtech first indicated to CenturyLink that they saw an issue with their SS7 links.

**SUPPLEMENTAL RESPONSE 12/03/21:**

Based in part on information produced by Comtech and the Washington Military Department, CLC has updated and expanded upon original Attachment PC-7 (Bates No. CLC-001454), which will be replaced in its entirety by Attachments PC-7a and PC-7b (Bates Nos. CLC-003283-003284).

Attachment PC-7a is an updated and corrected version of PC-7 which reflects that, per WMD's response to Public Counsel Data Request 4, Lumen selective routers (previously shown as step 2) were removed from service before the December 2018 network event. As depicted on Attachment PC-7a, originating service providers terminated directly to the Intrado LNG (gateway), and thus step 2 has been removed.

Attachment PC-7a has also been modified to reflect that Intrado (partnering with TNS) provided CenturyLink SS7 functionality, as opposed to Lumen providing its own SS7 functionality as originally depicted. See step 7.

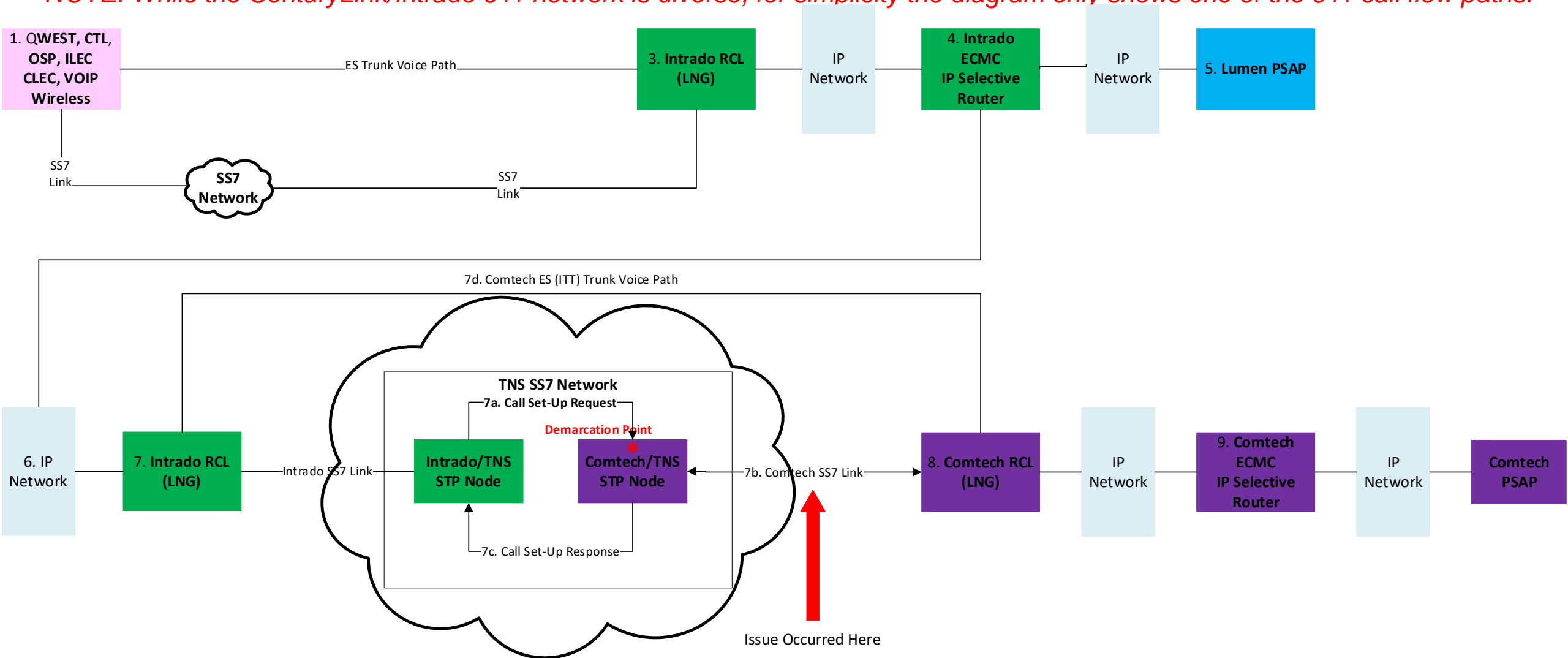
Attachment PC-7b provides greater detail of steps 7a-7c of the call flow (the SS7 functionality provided by CenturyLink/Intrado and by Comtech/TNS), as depicted more generally in Attachment PC-7a. As noted on Attachment PC-7a, that attachment (for simplicity) shows only one path for each step along the call flow, but notes that there are redundant paths. Attachment PC-7b shows those redundant paths and includes the specific circuit IDs, as provided by Comtech in discovery. As noted in response to other data requests, CLC was not aware of which circuits (if any) ordered by Comtech or TNS were being utilized by Comtech/TNS to provide Comtech's SS7 functionality. Comtech was solely responsible for the design, construction and maintenance of its own SS7 network.

As did Attachment PC-7, Attachments PC-7a and PC-7b accurately reflected the demarcation point between CenturyLink's and Comtech's SS7 networks. Comtech was solely responsible for the design, construction and maintenance of its own SS7 network. Comtech could have self-provisioned its STP nodes and SS7 links and/or it could have obtained those nodes/links from a host of providers. It appears Comtech (and its contractor TNS) chose to utilize four separate circuits sitting on the same Infinera network, but that was Comtech's choice and responsibility. Contrary to WMD's suggestion (in its response to Public Counsel Data Requests 4-7), the Comtech RCL was not the actual or logical demarcation point. Comtech itself identified the demarcation as the point depicted on Attachments PC-7a and PC-7b. See CLC's Response to Staff Data Request 19, including Confidential Attachment Staff-19a (in particular, Bates Nos. CLC-001591 through CLC-001601). CenturyLink did not design or construct Comtech's SS7 network, and Comtech is responsible for any failure of that network.

**Respondent: CenturyLink Legal  
Carl Klein, Manager Public Safety Services**

# Washington Network Design

*\*NOTE: While the CenturyLink/Intrado 911 network is diverse, for simplicity the diagram only shows one of the 911 call flow paths.*



# Washington Network Design

